

**COLORADO RIVER RECOVERY PROGRAM  
FY-99 ANNUAL PROJECT REPORT**

**RECOVERY PROGRAM  
PROJECT NUMBER: 94/CAP24**

I. Project Title: Coordinated Reservoir Operations Duchesne River

II. Principle Investigator: Jared D. Hansen  
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III. Project Summary:

The project study will identify and evaluate potential opportunities to coordinate the operation of various reservoirs located in the Duchesne River Basin with the goal of delivering water through the lower Duchesne River for improvement of the habitat. Reclamation Projects having facilities located in this part of the Basin are the Central Utah Project, Moon Lake Project, Provo River Project, Strawberry Valley Project, and the Ute Indian Irrigation Project. Although these projects were independently authorized, there may be opportunities to coordinate the operation of certain facilities to benefit the habitat and endangered fish while not impairing the ability of the projects to satisfy their authorized purposes. Other non-federal reservoirs may offer additional opportunities to coordinate operations. The potential opportunities will be fully described in the Summary Report with emphasis on those that appear to be the most viable.

The lower 2.5 miles of the Duchesne River have been designated as critical habitat for the Razorback Sucker and the lower Duchesne River may be important habitat for the endangered Colorado Pikeminnow and Razorback Sucker. Recovery of these fish in the upper Colorado River is expected to require improvement of existing habitat conditions. The coordinated operation of reservoirs located on the Duchesne River may result in the ability to enhance flows in the lower Duchesne River during periods of the year for the benefit of the endangered fish.

IV. Study Schedule: Initial Year - 1998, Final Year - 2001

V. Relationship to RIPRAP: **Green River Action Plan: Duchesne River, Task I.D**  
Coordinated Reservoir Operations

VI. Accomplishments of FY-99 tasks and deliverables, discussion of initial findings and shortcomings:

This year has been spent gathering, compiling, and building into the model the current operational criteria. Multiple meetings have been held with water users to understand how reservoirs and diversions on the Duchesne River work. Events in the Weber River Basin and the Provo River Basin affect the operations of facilities in the Duchesne River

Basin. It was determined that the scope of the model would be limited to the Federal projects. In meeting with water users, different operational possibilities were discussed in order to build enough flexibility into the model so that alternatives can be easily added later on. Some problems were encountered this year in communicating accomplishments of the study to the Recovery Program. Progress was made on the actual model even though this was not planned until next year. All facilities and significant tributaries have been built into the model. Since the last report in March, many changes have been made to the Riverware model. All Federal facilities in the Duchesne River Basin have been loaded into the model. The physical data for the reservoirs has been loaded including: Area-capacity curves, release tables, spillway tables, where applicable, and other pertinent information. Physical data for the Strawberry Aqueduct has been partially compiled and loaded, however, several discrepancies have been discovered and additional data has been requested from Central Utah Water Conservancy District. Stream flow data for USGS gaging stations has also been loaded. There is a wide range of coverage and some data will have to be correlated to fill in data for the missing dates.

A meeting was held on October 25, 1999, with the operators of the Strawberry Aqueduct from the Central Utah Water Conservancy District, to gather assumptions on the operation of the aqueduct and the associated reservoirs. Minimum flow requirements will be added to the model in the next few weeks. A draft output is scheduled to be completed by the end of November. After the output is reviewed by the facility operators, any problems found will be corrected and it is anticipated that an output will be presented at a meeting in January 2000.

- VII. Recommendations: The model extent will be limited to the Federal projects. Communication with the Recovery Program will be improved. Some portions of the Provo River and Weber River Basins may need to be included in the model.
- VIII. Project Status: The Project is On-Schedule and is continuing. Tasks 2 and 3 from the workplan were accomplished and Task 4 was started ahead of schedule.

IX. FY 99 Budget:

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| A. Funds Provided:   | \$50,000 RIP        |
| B. Funds Expended:   | <u>\$18,000 RIP</u> |
| C. Difference:   | \$32,000            |
| D. Recovery Program Funds Expended for Publication Charges: None |                     |

X. Signed: /S/ Jared D. Hansen Date: November 30, 1999

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